

MISSOURI CONSERVATIONIST

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Serving Nature & You



Vantage Point

Important Places for Eagles and Chickens

My job as director is interesting and challenging, and, at times, it can be very satisfying. One such time occurred last December.

Walter Crawford, executive director of the Wild Bird Sanctuary in Valley Park, invited me to help release a young bald eagle on the grounds of the State Capitol. The eagle recently completed a successful rehabilitation from a damaging injury and was ready for his return to the wild. It was my exhilarating privilege to be the last person to hold him as the eagle took wing and soared free.

The improving population of eagles across North America is perhaps the best-known endangered species success story and is a tribute to the hard work of many in the conservation community.

Unfortunately, efforts to help threatened or imperiled species have not always produced successful outcomes. Today, we are troubled by the plight of the native greater prairie chicken. Two hundred years ago, a third of Missouri was prairie, and hundreds of thousands of prairie chickens inhabited the state. In the spring, one could hear the birds performing a unique and awe-inspiring courtship ritual of “dancing and booming,” which to this day warrants an early morning visit to a viewing blind. Sadly, the opportunity is now available at only a few select sites. As prairie habitat declined, so did the prairie chickens, and today as few as 500 birds remain statewide.

Last fall, I was inspired by the passionate words and commitment to action of dedicated scientists and conservationists meeting to reverse the downward slide for this special endangered bird. It is a daunting challenge. The formula for success will require much more than just some special management work on a few acres of publicly owned land.

Many acres of prairie landscape must be restored and protected, regardless of who owns them. The bird’s unique habitat needs require the commitment of public and private landowners, communities and supportive conservation partners, as well as the spark of some new ideas. A coalition of partners must form based on a collective, shared commitment. Missourians have a rich history of grass-roots, community-based species recovery, and they remain supportive of efforts to conserve and restore threatened animals and plants.

The Department of Conservation is committed to promoting and managing Missouri’s diverse habitats



Joe Hoffman, World Bird Sanctuary rehab coordinator, handling a bald eagle on the State Capitol grounds.

to support all species of native fish and wildlife. As we learn more about these habitats each year, we benefit a broader diversity of species dependent upon each unique type. Today’s Missouri Natural Areas System includes 182 excellent examples of high-quality, sustainable natural communities, such as prairies, streams, wetlands and more. An important part of our mission is to work with other government and nongovernment organizations to identify and create more of these special areas.

Working for the recovery of a single species like the bald eagle or the greater prairie chicken is exciting and satisfying. But achieving long-term success requires commitment to management practices benefiting multiple plants and animals that contribute to the complex relationships among wild things that we simply call “nature.”

There is a role for each of us in this effort. Some of us may devote our professional lives to the task, while others may elect to volunteer their free time to research efforts or to conservation practices on their land. Still others may choose to pass on expanding knowledge to friends and neighbors, and some of us may be most comfortable contributing financially to recovery projects. Each of us must choose where we fit in the balance for coexistence between diverse fish, forest and wildlife resources and man’s desire for progress and prosperity. The challenges are great, but the outcome will say everything about our ability and commitment to provide real stewardship of things wild and free.

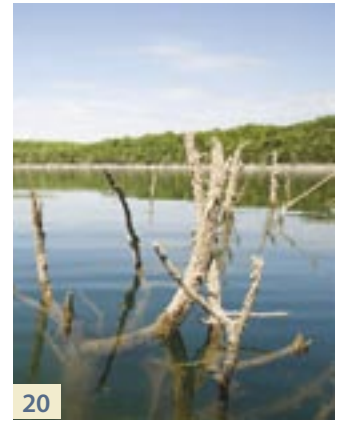
John D. Hoskins, Director



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Reflections

TURTLE TIDBITS

After reading the turtle article in February's *Conservationist* issue, I am compelled to comment on it. As usual, your staff does a wonderful job in reporting on and photographing our outdoors!

My family has eaten snapping turtle for over 50 years. My oldest son has become quite adept at removing the shell, exposing all the delicacies beneath. We prefer it pan-fried, similar to fried chicken. My family highly recommends it.

Karen Naas, Gower

Editor's note: Snapping turtles can be prepared in a variety of ways, much the same as squirrels or rabbits. The best results are obtained by parboiling the meat until it can be easily removed from the bone. Try stir-frying the meat with bacon in a very hot skillet or adding it to a stew or gumbo. Snapping turtle meat can

be delicious if the turtles are cleaned properly and the meat tenderized and prepared with a good recipe. Go to www.MissouriConservation.org/conmag/1996/06/50.html to read "Common Snapping Turtles: Catching, Cleaning, Eating."

FOX FACTS AND FANS

We just received our February issue, and after reading it I had to write you and tell you how much we enjoy it, along with our 7-year-old grandson, Anthony. Every time he comes over, the first thing he says is "Grandpa, do you have the book for me?" He reads and rereads them and then saves them.

Anthony really likes turtles and fish. We know he will really like this issue. Keep up the good work.

Doyle & Sheryl Lafolette, Trenton



The February 2006 *Missouri Conservationist* was exciting with the adorable red fox on the cover. The timing was appropriate—red fox pups were the object of a winning snapshot that my grandson took recently and it was published in a youth magazine. His snapshot came in second in the nature division. Perhaps he can be a photographer like Jim Rathert.

A big thank you to Nichole LeClair for enlightening me about the red fox.

Retha McCarty, Gladstone



WORTH COMING OUT FOR

Rainbows are formed when sunlight is refracted and reflected by moisture in the air. The larger the water droplets, the brighter and more distinct the bands. Dan Bush of Albany took this photo of a double rainbow on Groundhog Day (Feb. 2) at the Elam Bend Conservation Area near McFall, Mo. He used a Nikon D70 camera with a fisheye lens. For more of Dan's photos, go to www.missouriskies.org/rainbow/february_rainbow_2006.html.

I really enjoyed the latest *Conservationist*, but was curious about the fox article. Are the gray foxes I see young red foxes, or a different breed? I wasn't sure after reading the article.

Roger Beatty, via Internet

Editor's note: Both red and gray foxes are found throughout Missouri. Although separate species, they are often mistaken for one another because red fox pups are mostly brown and gray while adult gray foxes may have a considerable amount of reddish-brown fur. They are also slightly smaller than adult reds. If the body color has you confused, look at the animal's tail. Red foxes' tails have a white tip, whereas gray foxes' tails have a black tip.

Thank you for the excellent article in your February issue on the Red Fox—for me, the most loved of all wildlife creatures! Jim Rathert's photos of these beautiful

animals are so very good that I have sent for your book by Jim Rathert, *In Focus*.

**Dorothy Day, Chairwoman
Green Hills of Platte Wildlife Preserve
Parkville**

Editor's note: In Focus by Jim Rathert is available from our Online Nature

Shop at www.mdcnatureshop.com for \$18.00 plus shipping and handling. You may also order by phone, fax, mail or e-mail. For more details, call us toll free (from the U.S.) at 877/521-8632. Heritage Card holders get 15 percent off this and most other Nature Shop purchases.

The letters printed here reflect readers' opinions about the Conservationist and its contents. Space limitations prevent us from printing all letters, but we welcome signed comments from our readers. Letters may be edited for length and clarity.

Ask the Ombudsman



Q: I have a 12-year-old who wants to go turkey hunting this spring. I'm confused about what permit she needs. Please help.

A: There are two types of purchased permits available to youngsters. They are:
— Youth Deer & Turkey Hunting Permit (ages 6 to 15 with or without hunter education certification)

OR THE

— Spring Turkey Hunting Permit (ages 11 and older and hunter education certified)

Your daughter's bag limit and restrictions are based on the type of permit she gets.

A Youth Deer & Turkey Hunting Permit can be used during EITHER the youth season or the regular season but with that permit she must:

— hunt with a hunter education certified adult; or in the company of a landowner born before 1/1/67 on the land they own.

AND SHE IS

— limited to one spring turkey, so if she is successful during the youth season, then she is finished hunting spring turkeys.

If your daughter is hunter education certified she can choose to hunt on a regular Spring Turkey Hunting Permit. This allows her the possibility of taking:

— one bird during the youth season and one bird the last two weeks of the regular season

OR

— if she's unsuccessful during the youth season, two birds as allowed during the regular spring season

She does not have to hunt with an adult but having a mentor afield with any youth is always a good idea.

For details on permits and the privileges they afford please see Chapter 5 of the Wildlife Code www.sos.mo.gov/adrules/csr/current/3csr/3csr.asp.

Ombudsman Ken Drenon will respond to your questions, suggestions or complaints concerning Conservation Department programs. Write him at P.O. Box 180, Jefferson City, MO 65102-0180, call him at 573/522-4115, ext. 3848, or e-mail him at Ken.Drenon@mdc.mo.gov.

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A photograph of a stream flowing through a wooded area. In the foreground, the bow of a boat is visible, with the letters 'BI MO' and a small logo on its side. The water is clear, showing rocks and debris. The background is a dense forest with sunlight filtering through the trees.

Missouri Stream Team Reaches 3,000

BIGGER, BETTER, STRONGER

As membership grows, so do the scope and variety of Team projects.

by Sherry Fischer

Streams are the lifeblood of Missouri landscapes and communities. They are a source of recreation; they hold memories of events with family and friends; and often, towns and livelihoods are built around them. Many of us have streams that are near and dear to our hearts.

Since 1989, Missourians have been signing on to improve and protect our streams. Teams of individuals, families, friends, clubs, scouts, school groups and kindred spirits were created, and people from different backgrounds got the chance to learn about streams, become stewards, and speak out on behalf of the Stream Team program.

We're Bigger

With 3,000 Teams on board, an estimated 60,000 members are working to improve our streams. An average of 200 Teams have registered each year since the program began. This was accomplished with very little recruitment effort and reveals how much Missourians care about their stream resources. From the largest rivers in the state to the smallest backyard tributaries, groups have adopted nearly 15,000 miles of flowing water.

Stream Team projects are determined by local needs and interests. Picking up trash, educating, storm drain stenciling and monitoring are just a few options.



Stream Teams began monitoring the water quality of adopted streams in 1993. Training and equipment are provided.

As the program has grown, so have the Teams' projects. It is not uncommon for stream cleanups to involve hundreds of citizens removing many tons of trash in a day's time. In 2004 alone, 13,500 volunteers removed over 650 tons of trash from Missouri streams! They also planted over 7,000 trees and made over 1,300 trips to their adopted sites to monitor water quality. Stream Team volunteers aren't satisfied with the ordinary—they aim for extraordinary accomplishments with each outing.

Stream Team projects are chosen according to each Team's interests and local needs. Some pick up trash, plant trees or stencil storm drains, while others monitor water quality or help educate their community. The level of involvement depends on the amount of time the volunteers have to commit and how deep they want to dig in. The Teams call the shots, but biologists trained in stream management and water quality are available to provide

guidance and answer questions.

The program is sponsored by the Missouri Department of Conservation, the Missouri Department of Natural Resources and the Conservation Federation of Missouri. These three groups provide different strengths, resources and areas of expertise to volunteers.

Missouri leads the nation in volunteer stream

organizations. Each year, other states seek guidance as they establish their own unique stream adoption programs. We share our experiences and materials with these groups so that no one has to "reinvent the wheel."

**Stream Team
began because a
few individuals
had a vision: clean,
healthy streams
we can all enjoy.**

We're Better

Stream Teams are not limited in the types of projects they tackle. Program sponsors make it a priority

to continually add new activity choices. The volunteers' interests guide many of these activities. Water quality monitoring is a great example.

In the program's early days, volunteers were clamoring to do more than pick up trash and write letters to their local officials. They wanted to take an active role in monitoring the stream miles they adopted. In 1993, water quality monitoring was added with supporting workshops, equipment and expertise.

Other activities that have been added include storm drain stenciling, adopt-an-access, photo point monitoring (using photographs to monitor and compare area conditions) and mentoring. Whether you like to get your hands dirty or not, there is something for everyone.

Stream Team volunteers have a variety of technical resources at their fingertips. The *Stream Team Academy* is the program's "university without walls" and offers continuing education on natural resources. Workshops have been held on understanding streams, fish identification, crayfish, herpetology, mussels, hellbenders, tree planting and groundwater.

Our bimonthly newsletter, *Channels*, is full of information for and about Stream Teams. Occasional fact sheets are included that give background and information on stream-related topics. These resources make it possible for Stream Team volunteers to couple technical information with their passion for stream improvement and protection.

It's not uncommon for these informed and educated Stream Team volunteers to become an integral part of the decision-making process in their watershed or community. They serve on task forces and boards, and they testify at hearings and council meetings. We can all be proud of the work they're doing in the name of our stream resources.



Stenciling warnings like this one next to storm drains is one way Team members work to keep streams clean.

- **1988** ➤ First Rivers and Streams Conference—public gathering where citizens express an interest in a Stream Team program.
- **1989** ➤ Stream Teams start signing on. Stream Team #1 is the Roubidoux Fly Fishers.
- **1990** ➤ The first Blue River Rescue Cleanup event in Kansas City.
➤ St. Louis area Stream Teams get involved with Operation Clean Stream in the Meramec River basin.
- **1993** ➤ Missouri Department of Natural Resources sponsorship begins and Volunteer Water Quality Monitoring takes off.
- **1994** ➤ First Stream Team Association begins—Scenic Rivers Stream Team Association, made up of Stream Teams from West Plains, Willow Springs and Mountain View.
- **1996** ➤ Stream Team takes on storm drain stenciling.
- **1997** ➤ Stream Team 1000 signs on!
➤ First Stream Team Academy workshop held.
- **1998** ➤ Missouri Watershed Coalition starts.
- **1999** ➤ Stream Team Program sponsors the "Stash Your Trash" Program and distributes trash bags to canoe liveries and other outlets.
➤ Annual value of Stream Team activity accomplishments reaches \$1 million for the first time.
- **2001** ➤ Adopt-an-Access activities begin.
➤ First Missouri River Relief event is held.
- **2002** ➤ Stream Team 2000 signs on!
➤ 100,000th streamside tree is planted.
➤ Regional Stream Team Conferences begin.
➤ Stream Teams start naming unnamed tributaries.
- **2004** ➤ City of Arnold establishes fines for littering the Meramec watershed within city limits.
- **2005** ➤ One dedicated volunteer reaches a decade of monthly water quality sampling.
➤ 3,500th ton of trash is collected.
➤ Fishing line recycling efforts begin.
- **2006** ➤ Stream Team 3000 signs on!



CLIFF WHITE

During special events, participants connect with other groups in their watershed. This often leads to partnerships.

We're Stronger

Anthropologist Margaret Mead once said, "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has."

Networking is one of the greatest strengths of the Stream Team program. Through our workshops and special events, members have the opportunity to connect with other groups in their watershed. It doesn't take long for them to realize that by working together, goals that once seemed lofty now seem within range.

When Teams really get serious about joining forces, they form Stream Team Associations. Several successful Associations exist throughout the state. Some apply for not-for-profit status, making them eligible for grants and special funding. When two Teams put their heads together, they usually find that they have complementing specialties. Stream Team Associations are one of the best ways to make Stream Team dreams a reality.

Stream Teams never stop looking for new opportunities and even greater challenges. Perhaps this is what led them to develop the Missouri Watershed Coalition (MWC). The MWC is a statewide group made up of representatives from Associations. Although they are

a newly formed group, their hope is to help oversee the Stream Team program and offer one-on-one advice and services to Teams and newly forming Associations. The volunteers who make up the MWC have years of experience and are poised to use what they've learned from their own mistakes and successes to help new members.

Stream Team began because a few individuals had a vision: clean, healthy streams we can all enjoy. It has been successful because of the many people who have signed on to share both the vision and the work needed to make it reality. It may take us awhile to get there, but Stream Teams are a tenacious lot. They'll stick to the task until it's accomplished. As we now look beyond 3,000 Teams, there may be no limit to what they can achieve. ▲

GETTING INVOLVED
If you'd like to start a Stream Team or get involved in similar efforts in your area, contact a Stream Team biologist at 800/781-1989 or www.mostreamteam.org.

PROJECT BLUE RIVER RESCUE:

Volunteers Reclaim and Improve a Kansas City Stream

What is Project Blue River Rescue?

Sixteen years ago, a group of volunteers set out to clean up a small section of the Blue River near Lakeside Nature Center in Kansas City's Swope Park. This group, which formed Stream Team 175, started Project Blue River Rescue (PBRR). The project involves over 500 citizens annually.

The Blue River, premier Kansas City resource

The Blue River flows northeasterly through Kansas City for 41 miles. The watershed, or land area draining into the river, is 270 square miles and is home to 583,000 people. This area covers parts of two states (Kansas and Missouri), three counties, 12 local governments and 10 school districts. "The Blue" (as it's called by locals), its tributary streams and corridors provide valuable resources and habitats in the midst of the city.

Problems facing the Blue River

Water quality in Blue River watershed streams is degraded by point and non-point pollution sources. Point sources are those that enter the stream at a specific point, such as from a pipe or inflow. Non-point pollution includes runoff from land-based sources such as streets and parking lots. Soil is one of the biggest non-point pollution sources throughout the state, especially in developing urban areas.

Perhaps the most unsightly problem for the Blue has been solid waste dumping. Some out-of-the-way areas become known as easy-access dumpsites. Other sources of trash include roadside litter that washes into streams via streets and storm drains or improper disposal by nearby residents or business owners.

How is PBRR helping?

Over the years, Stream Team 175 has removed more than 1,200 tons of trash from the banks, corridors and surrounding watershed of this urban river. Volunteers have worked to clean up dumpsites and raise awareness and enforcement so future dumping does not occur. Some areas now have surveillance to catch local dumpers.

PBRR volunteers have improved habitats by planting more than 35,000 trees to stabilize eroding stream-banks. The group also monitors water quality and leads monitoring demonstrations during the annual cleanup.

The 15th Year Celebration

In 2005, PBRR celebrated its 15th year. Nineteen clean-up sites, including 24 sections on a 20-mile stretch of river, were tackled, including dumps at Byram's Ford, a local historic Civil War battlefield. In addition, volunteers from Missouri River Relief, Inc. (Stream Team 1,875) partnered to clean up the confluence of the Blue and Missouri Rivers. More than 800 volunteers participated in removing more than 200 tons of trash, 14 cars and 1,200 tires.

Come join in the fun

If you attend Blue River Rescue, you'll begin your day at Lakeside Nature Center on Gregory Boulevard. Volunteers sign in, enjoy breakfast and divide into groups according to their abilities and interests. Participants spend the morning at their sites and then lunch is provided at Lakeside. Those who have steam left go back out after lunch to put finishing touches on their sites.

What an accomplishment!

PBRR has become a Kansas City springtime tradition. It is held on the first Saturday in April every year. If you'd like to get involved, join us at Lakeside Nature Center on Saturday, April 1.



Solid waste dumping is an unsightly problem on the Blue River. Over 1,200 tons have been removed by Team 175.



SURPRISE ENDING

Like good fiction, our
storybook hunt had an
unexpected—and
a happy—ending.

by Todd R. Pridemore



JIM RATHERT

Huge smiles fill our faces every time my good friend Brian and I talk about our turkey hunting outing. We had a storybook hunt. And, like a good story, we enjoyed it more because we could never have guessed that it would turn out the way it did.

Our hunt actually began Friday evening when we arrived at Brian's parents' farm in northern Missouri. We quickly threw on our camouflage and headed out into the woods, hoping to hear some gobblers as dusk faded into night. Unfortunately, all we heard were zillions of mosquitoes buzzing around our heads—until a sharp “putt” sounded directly behind us. I slowly turned to see the dark outline of a turkey melting away into the brush.

We waited a few more minutes but heard no gobbling. When Brian and I drove back to the house, our minds were full of uncertainty and questions. Where would the gobblers be in the morning? Was it a tom or a hen that we saw that evening? Was it going to rain tomorrow, as the weatherman had predicted?

As we ate our cereal the next morning, Brian and I both looked out the kitchen window with the same anxiety that we'd felt the night before. Thankfully, it wasn't raining yet.

We planned to return to the same area we had visited the evening before, primarily because Brian's family had seen lots of turkeys there in the past.

It was a short drive to our destination. Remembering the night before, we applied insect repellent before beginning our trek across two open fields. Brian carried his shotgun, and I carried a hen decoy. We were crossing a ditch between the fields, when we heard the first birds begin to sing.

I suggested that we hurry so we could be in the woods before the turkeys woke.

Our plan was to walk about 150 yards along the forest edge and position ourselves near the corner of a cleared wheat field. The field edge faced a stand of timber on a hillside that we hoped would hold roosted turkeys.

We couldn't find a tree large enough for us both to lean against comfortably, so we shared a 6-inch redbud, which was better than nothing. Thankfully, we had some ground cover in front of us to break up our outlines.

Before we sat, I set the hen decoy out in the field about 7 yards from the tree line. I had just returned to

the protection of the woods when we heard the first gobble of the morning. The gobbler was about 150 yards across the corner of the field in front of us.

Three more gobblers soon sounded off. We smiled, and then giggled like teenagers as double and triple gobbles rolled across the clearing.

We weren't too confident, though. The year before—Brian's first season of turkey hunting—we'd encountered a similar situation in almost the same place. We'd heard but never seen turkeys. The noisy gobblers had followed hens away from us after flying down. They never entered the field.

After about 30 minutes of gobbling, a male turkey glided down into the field about 100 yards away. He stared at the decoy for more than a minute without moving. A hen then flew down and joined him, and two more gobblers trotted into the field from the woods. Another hen materialized, making three gobblers and two hens. We were in for a show. It turned out to be a long one.

For nearly an hour, the gobblers remained out of range. Sometimes they seemed to be moving away from us, and sometimes toward us. Using both my box call and diaphragm call, I tried to entice them closer to our decoy, but the hens seemed to call them away.

The hens finally broke the stalemate with the decoy. They started moving to our left, but slightly closer. The gobblers followed them for a bit but then, inexplicably, their attention turned to our decoy.

We were set up about 10 feet inside the field edge, and our decoy was about 7 yards out in the field. Because the gobblers had moved so far to our left, they were only about 5 to 10 yards out in the field from the woods. At the angle they were approaching,

they would have to be very close before Brian would have a clear shot.

The trio of gobblers didn't run or appear to be in a hurry, but they never hesitated either. All three were in full strut, and they took turns cutting each other off by walking in front of the other two as they moved toward the decoy.

When they were within 15 yards and still slightly to our left, I began to get a little nervous. They were in full strut, and I told Brian not to shoot until a gobbler stuck his head up. I thought about “clucking” to get them to stick their necks out, but I chose to remain silent.

We had a storybook hunt. And, like a good story, we enjoyed it more because we could never have guessed that it would turn out the way it did.



Finally, and perfectly, one gobbler separated himself from the other two, stopped, and stuck his head out to look the decoy over. Brian had a shot and he took it.

Bird After Bird

He made a good, clean shot. I couldn't believe it, but the other two toms seemed attracted by the commotion and ran over to where the other tom lay dead.

Brian quietly handed me the Remington 870 so I could fill my tag, too. That kind of opportunity doesn't come along every day.

Something was wrong with the gun, though. I struggled for what seemed like a minute to get a shell chambered so I could shoot. Finally, I took aim and fired, but nothing happened. The gun wouldn't fire. The two remaining gobblers were getting more nervous by the second.

I decided that my only choice was to eject the second shell and try chambering another. I knew this would create a lot of noise and commotion, but I had no

choice. The sound seemed to rattle through the woods, but the shell chambered smoothly. One gobbler was running away, but the other remained standing right in front of me. I put the bead on his head and pulled the trigger. Finally, two birds were down.

Brian and I picked up our birds and admired them, and I silently gave thanks to God for making such a morning possible. Not only was this Brian's first gobbler, but it was my first, too. I had spent nearly a dozen years calling in turkeys for friends and for fun (on wildlife refuges and private land), but this was actually the first bird I had shot.

It was a wonderful shared experience. After more than an hour of watching wildlife courting rituals and feeling the suspense and uncertainty of the hunt's outcome, two friends managed to bag their first turkeys. Even the forecasted rain held off until after we'd checked and cleaned our birds. Whenever we get together we still reminisce about our turkey hunting adventure with its storybook ending. ▲



• Nonnative Nuisance

**Managing invasive species is critical for
maintaining Missouri's biodiversity.**

by Bob Gillespie, photos by Jim Rathert



Kudzu

In the summer of 2003, I was a hired gun for the Illinois Exotic Species Task Force. My primary mission was simple: eradicate populations of kudzu (*Pueraria lobata*). This invasive exotic plant was responsible for consuming millions of acres of forestland across the Deep South in a veil of jungle-like vines.

My mission took me across the state of Illinois and up against urban infestations in Peoria to “Kudzu Mountain” in the Shawnee Hills. My job was to protect our natural resources from exotic plants and animals. When I came to Missouri, I brought my work with me.

Know your enemy

Exotic (or “nonnative”) species are those that didn’t exist here before European settlement within the state’s present boundaries. An invasive exotic species is one that is likely to cause harm to the economy, the environment or to human health.

There are many exotics within the state, but only a rebellious few cause problems within Missouri’s ecosystems. Roughly 28 percent of Missouri’s flora is made up of exotic plants introduced to the state, while only 4 percent are considered invasive.

Invasive exotics are transported from ecosystem to ecosystem both intentionally and unintentionally.

The invasive exotics are ranked (from high to low priority) as highly invasive, moderately invasive, widespread, or locally invasive. Highly invasive species are of most concern because they reproduce prolifically and compete aggressively. They can replace or exclude native species because they are not held in check by the natural pressures of predation, disease or competition that kept them in check in their native habitats.

Invasive species include a variety of exotic plants, insects, fish, mollusks, crustaceans, mammals, birds, reptiles, amphibians and pathogens. They threaten what we as Missourians hold dear—our fisheries, forests, wetlands, prairies and wildlife. Invasives account for damages and losses totaling



Garlic mustard

approximately \$137 billion each year in the U.S. They damage our ecosystems, push out native organisms, and alter our landscapes. Approximately 400 of the 958 species recognized as threatened or endangered by the Endangered Species Act are declining due to competition with invasive species.

By land, sea and air

Invasive exotics are transported from ecosystem to ecosystem both intentionally and unintentionally. Purchasing an invasive plant such as a burning bush, purple loosestrife or a bush honeysuckle and transplanting it into your yard is an example of an intentional introduction. So is knowingly transporting invasive seeds, whole plants or cuttings, live animals or pathogens with the intent to establish, maintain or release them into a new area.

Invasives are introduced unintentionally when gypsy moth egg masses are transported on your motor home; zebra mussel larva ride along in the bilge of your bass boat; or garlic mustard seeds cling to your favorite hiking boots. Intentional or unintentional, movements of exotic pests lead to an overall reduction in biodiversity—a simplification of the variety in our natural world.



Bush honeysuckle

Kudzu was introduced from Japan and China in the 1900s. It was widely promoted, particularly in southern states, for erosion control. The “Mile-a-Minute Vine” or “The Vine That Ate the South” was even planted as an ornamental plant. The USDA recognized kudzu as a weed species in 1972 and as a noxious weed in Missouri in 2004. It is estimated that kudzu populations

cover some 7 million acres across the United States.

Recently, I was sent to eradicate a kudzu population in Missouri that had been planted years ago. It had a foothold and would be difficult to dislodge. The landowner told me his mother had planted it during the depression years. She had ordered it from a catalog where it had been advertised as a “porch vine from



the orient.” A porch vine indeed—it shrouded the abandoned farmstead and a few acres of timbered land; the crumpled trees stood strangled in the distance.

The good fight and the bad seed

Protocols for managing invasive species have been developed in recent years to protect native

ecosystems. Many of these plans read like orders for military operations and use phrases in their titles like “National Strategy and Implementation Plan” or “National Early Warning and Rapid Response.” All aim to stop invasives before they get here. If they’ve already arrived, the goal is to eliminate them before they become established. And in the worst-case

Learn more about invasive species:

- **MDC Online:**
www.MissouriConservation.org/nathis/exotic
- **The Invasive Species Initiative, The Nature Conservancy:**
tncweeds.ucdavis.edu
- **National Invasive Species Council:**
www.invasivespecies.gov
- **The Center for Plant Conservation:**
www.centerforplantconservation.org/invasives
- **PCA Alien Plant Working Group:**
www.nps.gov/plants/alien/factmain.htm
- **USDA Forest Service, USDA APHIS, and other contributors:**
www.invasive.org
- **Missouri Botanical Garden:**
www.mobot.org
- **Protect Your Waters:**
www.protectyourwaters.net



scenario, with established invasives, the focus becomes defending the most pristine natural settings, the true jewels.

Managing the invasion of countless exotic species requires coordination and collaboration from nationwide to local levels. Education and prevention are the

first steps. Missourians need to be aware that the choices they make determine the future health of our natural resources. This means carefully considering which plants to use in landscaping, as well as inspecting and cleaning equipment that has traveled with you. These may seem like small steps, but

introductions of invasives are usually relatively simple events.

Eradication is the next step, and if conducted early, disasters can sometimes be abated. This is where early detection and rapid response comes into play. This protocol is usually reserved for agricultural pests and threats to human health,



Zebra mussels

but it has been used to defend natural communities as well. Eradication requires quick action and aggressive tactics. Examples include incinerating trees harboring Asian long-horned beetles or trapping feral hogs.

Once an invasive species becomes established, control meth-

ods may include chemical, cultural, mechanical or even biological control measures. Chemical control includes the careful application of pesticides or herbicides. Cultural control means sound land stewardship such as planting native cover types, controlling grazing pressures on rangeland or minimizing disturbances that allow an invasive to get established. Mechanical control may involve the use of machinery, flooding or prescription fire. Lastly, biological control refers to the introduction of another species to help control the invasive one. Often, these species are natural enemies of the pest and may feed upon, parasitize or interrupt the life cycle of the target species. Using a combination of these methods is called integrated pest management and can boost effectiveness.

The kudzu population I had been sent to kill didn't cover that much acreage, but (like all kudzu populations) it had visions of grandeur. I snapped images on my digital camera to document the pretreatment condition of the site and donned my nitrile gloves. Two hundred gallons of mixed herbicide continued to slosh within the baffles of my spray tank from the agitation of miles of travel, causing my truck to wobble as I shut it down. I surveyed my mission's objective.

I snaked a high-pressure hose through the tangled mat of vines and broken treetops. Then I touched off the ignition on my pumper, and it roared to life. I made the typical adjustments to pressure up the system, pressed my goggles down against my face and pulled my drift hat down as far as I could. Picking up the nozzle, I lined up the first vine-canopied tree and squeezed the hand-trigger. The nozzle bucked and the solution sizzled skyward to meet tendril and leaf. ▲

- **Reed canary grass & Purple loosestrife** threaten wetland resources and diminish their capacity to sustain waterfowl populations.



PURPLE LOOSESTRIFE

- **Feral hogs** threaten our deer and turkey populations, as well as the livestock that many of us rely on.

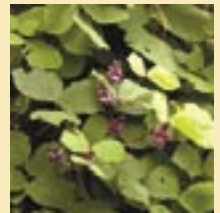
- **Sericea lespedeza** invade prairies and rangelands, effectively reducing populations of bobwhite quail and greater prairie chickens.



SERICEA LESPEDEZA

- **West Nile virus** threatens several species of Missouri birds, not to mention posing health problems for horses and people.

- **Kudzu** has been identified as a host for Australasian soybean rust, a threat to the soybean farmer's bottom line.



KUDZU

- **Northern snakehead fish, Asian carp & zebra mussels** all have sights on our fisheries and native mussels.

- **Emerald ash borer & gypsy moth** threaten our forest resources.



GYPSY MOTH

- **Chinese yam** threatens the flora of our pristine streams with populations in the watersheds of the Current River.

- **Nonnative shrubs, such as bush honeysuckles, Chinese privet and winged burning bush** dominate the understory of suburban wooded areas, effectively excluding native herbaceous species and disrupting oak regeneration.



What, Where and When...

AN ANGLER'S GUIDE TO Bull Shoals AND Table Rock Lakes

by Bill Anderson, Bob Legler, A.J. Pratt and Chris Vitello ▲ photos by Cliff White



Bull Shoals and Table Rock lakes are among the most popular fishing destinations in the Midwest. Both enjoy national reputations for excellent black bass fishing, but also provide good opportunities for a variety of other fish species, including walleye, crappie, white bass, bluegill and, at Table Rock, paddlefish.

Like most large reservoirs, fishing at Table Rock and Bull Shoals can be difficult at times. Seasonal patterns, weather systems, high water and natural population fluctuations can all influence fishing success day-to-day and year-to-year. However, anglers who take the time to learn these waters and the habits of their finned residents and then master some basic techniques will, more often than not, find success.

BLACK BASS

Bull Shoals and Table Rock contain lots of largemouth bass, smallmouth bass and spotted bass. Population

surveys indicate these two lakes will provide anglers with good fishing for the next several years.

Largemouth bass, the most sought-after of the three black bass species, can be found throughout both lakes.

Smallmouth bass generally inhabit the larger, clearer portions of the lakes, such as the area below Tucker Hollow on Bull Shoals and the main stem portions of Table Rock above the dam. Anglers should begin their search for smallmouth bass by targeting pea-gravel banks where the smallmouth spawn. Smallmouth bass typically spawn in deeper water than either largemouth or spotted bass, so don't expect to find them too shallow.

Spotted bass, commonly called "Kentuckies" or "Spots," are found throughout both lakes as well—often near bluffs and other deep-water areas.

In the relatively clear waters of Bull Shoals and Table Rock, fish can

be found in either shallow or deep areas. Therefore, anglers need to fish a variety of water depths and types to find bass. Don't concentrate all your efforts along the banks. Outside of the spring spawning period, bass are often found in deeper water.

Points on the main lake or in the creek arms are always good places to start. The mouths of small coves and cuts or depressions along the bank are good areas because fish have quick access to both shallow and deep water in these locations.

Bluffs with or without standing timber are also productive areas. Be on the lookout for bass surfacing as they feed on shad and concentrate on these areas.

The same techniques work for all three species of bass.

Plastic grubs hooked on 1/8- or 1/4-ounce round jig heads are popular lures at the lakes. They allow anglers to fish slowly, even during moderately windy conditions.

Smoke and natural-colored grubs seem to work best. Use a medium-action spinning rod with 6- to 8-pound-test line. Many anglers choose green or "invisible" lines because the water at Table Rock and Bull Shoals is generally clear.

Jig and grub combos can be very productive in the spring and summer months. They work well on pea-gravel banks and transition banks, where bluffs change into shallower banks. Position your boat so you can cast to both shallow and deep water.

Cast the grub and let it fall to the bottom. While maintaining the rod tip at the 12 o'clock position, slowly retrieve the jig all the way back to the boat. Strikes may be fierce, or they may feel like additional weight has been added to the line.

During winter months, grubs work best when "swum" over submerged trees or when fished vertically near schools of shad.



In the lakes' upper arms, white bass are taken by boat, wader and bank fishing.

Carolina rigs with plastic baits allow anglers to cover both shallow and deep water quickly and efficiently.

Use only enough weight to stay in contact with the bottom. Lighter sinkers have a tendency to hang up less and improve an angler's sensitivity to a strike. Windy conditions and deeper water usually require heavier weights.

Casting top-water lures is one of the most exciting ways to catch bass at Bull Shoals and Table Rock. When conditions for top-water fishing are right, the action can be explosive.

The leader should be lighter than the main line. Begin with a 2-foot leader, but you might run shorter or longer leaders depending on the water clarity, type of cover and structure being fished, and what the fish seem to prefer.

Hooks with wide gaps or worm hooks work best. Choose smaller hook sizes to keep the lure buoyant and to maintain its action.

Standard lures used in Carolina rigging include 4- to 8-inch plastic lizards, finesse worms and creature baits. Lizards work best in the spring. Smaller baits are more effective in clear water or when there is a lot of angling pressure.

Fish the rig by dragging it along the bottom with a slow, steady retrieve or vary the retrieve by pausing occasionally. Experiment until the fish indicate which retrieve they prefer.



Find the right depth, and you'll catch crappie at Table Rock and Bull Shoals lakes.

Carolina rigging is great for catching bass in shallow water, especially in April, but the method also catches bass in deeper water—down to 35 feet—off secondary and primary points.

Casting top-water lures is one of the most exciting ways to catch bass at Bull Shoals and Table Rock. When conditions for top-water fishing are right, the action can be explosive.

When water levels are high, work floating worms, fished weightless on spinning tackle, in and around flooded shoreline brush and vegetation. Bright colors, such as bubble gum pink, chartreuse, yellow and methiolate are normally the best producers. You usually see fish take the worm. Experiment with the speed of your retrieve.

Zara spooks, red-fins and chugger-type baits are effective in clearer water. Baitfish colors are recommended. Generally, darker lures are more effective during low-light and overcast conditions.

Most of the year the secret to catching quality-size bluegill at these reservoirs is to get away from the shoreline and fish deeper water.

Choose light color or even clear lures when the skies are bright.

BLUEGILL

Table Rock and Bull Shoals reservoirs have great bluegill fishing. Eight- to 10- inch fish are common and offer an excellent opportunity for youngsters and adults to reap a harvest. Bluegill are aggressive and easy to catch during their spawning period, which usually peaks near the end of May, but may continue until late July, or even August.

The fish typically spawn in small side pockets off larger coves. They prefer to spawn in areas with a pea-gravel bottom. Most spawning takes place at a depth of 8 to 10 feet. Bluegill nests are usually located close together, so if you catch one bluegill, it's likely the same area will yield others.

Once bluegill have spawned, they typically move to more elongated main lake, pea-gravel points and can be found in water depths ranging from 15 to 30 feet. Most of the year, the secret to catching quality-size bluegill at these reservoirs is to get away from the shoreline and fish deeper water.

Bluegill are terrific fighters and are fun to catch on light action spinning rods or ultra-light rods with 2- or 4-pound-test line. Natural baits, like crickets, river worms, nightcrawlers, meal worms and wax worms, work well. When using worms or nightcrawlers, it's best to pinch off a piece of bait approximately an inch in length rather than using the entire worm.

The best technique for deeper bluegill is to fish straight down with the bait just off the bottom, while moving the boat slowly to locate fish. A long-shank hook and crimp-on, split-shot weights are all you need for this type of fishing.

CRAPPIE

Crappie fishing on Bull Shoals and Table Rock lakes is up and down depending on the success of previous crappie spawns. When crappies have a good spawning year, anglers usually have great crappie fishing two to three years later.

Crappie fishing is best from mid April through early May, when water temperatures in the mid-50s trigger the fish to spawn. They seek out sand or gravel bottoms in coves and along shorelines. Small notches



The Conservation Department stocks paddlefish in Table Rock Lake and monitors their growth. Fish can reach legal size in as little as six years.



CLIFF WHITE

Catching bluegills is great fun, and their meat is tasty. Table Rock and Bull Shoals bluegills seem to prefer deep water.

or depressions along an otherwise straight shoreline often hold spawning crappie. Spawning usually occurs in deeper water in the clear, main lake areas and in shallower water in turbid river arms.

The rest of the year, crappie often suspend around woody structure, such as standing timber and brush piles, or they might school near points and along steep banks.

Crappie can be caught with jigs, minnows or small crankbaits. Most crappie anglers at these reservoirs fish 1/32- to 1/8-ounce light-color jigs. White and chartreuse work well. Fish the jigs at various depths until you find at what depth the crappie are holding.

Crappie hit aggressively in the

spring, but when the bite is light, which often is the case in winter, a slight twitch in your line may be the only indication you have that a crappie has taken your lure.

PADDLEFISH

Table Rock Lake paddlefishing is

famous. Fish in excess of 80 pounds are not uncommon, and some reach up to 140 pounds. Because natural reproduction is limited, the Conservation Department annually stocks paddlefish fingerlings.

Table Rock paddlefish grow rapidly and reach legal size—34

Permit Bargain!

The White River Border Lakes Permit entitles Missouri and Arkansas resident fishing permit holders and Missouri residents 65 years old or older to fish anywhere on Bull Shoals, Norfolk and Table Rock lakes. This annual permit opens up about 50,000 acres of water to Missouri resident anglers and eliminates the need to purchase a nonresident fishing permit from Arkansas. The permit is available at all Missouri and Arkansas permit vendor locations.

inches in length, measured from the eye to the fork of the tail—in just six years. The paddlefish season opens on March 15 and runs through April 30. The daily limit of paddlefish is two with a possession limit of four.

The majority of the paddlefish harvest occurs above Cape Fair, in the upper James River Arm. The paddlefish gather there while waiting for sufficient flows to make a spawning run up the river. Paddlefish can migrate as far as 60 miles up the James River.

Because paddlefish are filter feeders and do not bite artificial or natural baits, snagging is the only way to harvest them.

The fish run large, so stout rods and heavy line are necessary.

Troll over main lake points to catch walleyes through summer and fall.

Summer is also a good time to catch large white bass on Table Rock by trolling crankbaits over deep, open water.

Anglers usually attach two large treble hooks approximately 2 and 4 feet above an 8- to 20-ounce terminal sinker and troll or drag the hooks and sinker behind a slow-moving boat while making long sweeps with the rod. You know you have the proper amount of weight if your sinker hits bottom between each rod sweep. You can also cast the rig and retrieve it with long rod sweeps.

Finding concentrations of paddlefish with depthfinders will

greatly increase your chances of catching paddlefish.

WALLEYE

Bull Shoals has some of the best walleye fishing in the Midwest. The fishing is so good that the Professional Walleye Trail has held multiple walleye tournaments on the reservoir. Walleye populations also are on the rise in Table Rock.

From January to March, look for walleye congregating near spawning areas in major tributaries. Cast stick baits parallel to the bank in shallow water or troll minnow-tipped, bottom bouncers along flats.

After the spawn, try trolling crankbaits across flats or main lake points. As the year progresses, the walleye seem to move to deeper water. You'll usually find them near bottom in between 25 and 30 feet of



water, but they sometimes move as deep as 40 feet.

Crankbaits and bottom bouncers tipped with nightcrawlers are the most popular lures at Table Rock and Bull Shoals. Jigging spoons also seem to work well. When the fishing is slow, try slowly dragging a minnow-tipped jig along the bottom.

In summer, use your depthfinder to locate the thermocline, above which water temperatures and dissolved oxygen levels are more attractive to walleye and prey fish.

WHITE BASS

During March and April, white bass congregating to spawn in the lakes' upper ends and in the major creek arms of the White River lakes are vulnerable to boat, bank and wading anglers. Use light tackle and long rods to help you cast farther.



CLIFF WHITE



CLIFF WHITE

Bull Shoals and Table Rock lakes produce lots of fish and even more family fun.

Purple, white and baitfish-colored single-tail plastic grubs and marabou jigs are good choices. These baits can be fished slow or fast and in shallow or deep water. Choose 1/8- to 1/16-ounce jigs. At night, try fishing a black grub or jig in shallow water.

Baitfish-colored crankbaits also are effective. Both floating and shallow-diving lures catch fish from both shallow and deep water. Small topwater lures also have produced limits of white bass.

During early summer months, anglers use lanterns or other artificial lights to attract baitfish, which

draw white bass in to feed. The night fishermen use minnows and freshly caught shad for bait. Anchor your boat along submerged river channels and fish minnows or freshly caught shad at various depths near the edge of the circle of light.

Summer is also a good time to catch large white bass on Table Rock by trolling crankbaits over deep, open water. ▲

For additional tips on fishing these lakes, watch "Missouri Outdoors" the weekend of April 29 & 30. See page 33 for station listings.

Fishing Info

For fish population data based on fish sampling studies and creel surveys, read the annual fishing prospects report at www.MissouriConservation.org/fish/prospects/ or request a copy from your nearest Conservation Department office. See page 1 for regional office phone numbers.

For current fishing information about fishing Bull Shoals and Table Rock reservoirs, read the statewide weekly fishing report at www.MissouriConservation.org/fish/fishrt/.

For general information about fishing the lakes, visit the Conservation Department's Web site at www.MissouriConservation.org and type the lake's name and "fishing" in the search box.



TURKEY SEASON TIMING

Have you wondered why this year's youth turkey season opens so early and the regular season comes so late? It's just calendar happenstance.

This year, the Easter weekend falls on the dates normally set aside for youth turkey hunting. To avoid conflict between hunting and other family activities, the Conservation Commission set the season a week earlier than usual.

The regular season has, since 1960, opened on the Monday nearest April 21. That can put the season opener as early as April 18 and as late as April 24. This year, the season falls as late as possible, April 24, which happens about every seven years. For more information about the spring turkey season visit www.MissouriConservation.org/hunt/turkey/sprturk/.

Missouri trees book now in field-guide format

Naturalists on the go will be pleased to learn that *Trees of Missouri* is now available in a format that is practical to carry afield. The book, originally issued as an 8-by-10-inch, 400-page text, was too bulky to fit in a backpack. Author Don Kurz has remedied that problem by paring the original text down to 147 pages and shrinking the size to a pocketable 7.5-by-4.75 inches. The *Trees of Missouri Field Guide* is still detailed enough to enable anyone to identify 174 tree species commonly encountered in the Show-Me State. It uses leaf shape and other easily observed characteristics to tell trees apart. Dozens of color plates and photos aid in the process. This book would be a bargain at twice the price, which is \$7.50, plus shipping and handling and sales tax where applicable. To order, call, toll free, 877/521-8632, or visit www.mdcnatureshop.com.



Shumard oak is 2006 Arbor Day tree

The Shumard oak, sturdy and adaptable, is this year's Arbor Day poster tree in Missouri. More than 120,000 children across the state will receive 1- to 2-foot Shumard oak seedlings to plant around their schools, homes and parks this month.

The Conservation Department observes National Arbor Day each April by giving tree seedlings to fourth-grade students in public, parochial and home schools. This year's choice of tree was based on an ample supply of the trees and their versatility.

Shumard oaks have straight trunks, sturdy branches and open crowns that can reach 100 feet in the air, making them good shade trees. They are long-lived and grow well on wetter and drier sites than are suitable for northern red oak trees. Their leaves turn red in autumn.

Their medium-sized acorns feed deer, turkeys, raccoons, blue jays, woodpeckers, wood ducks, mice and squirrels. Their wood is suitable for cabinets, furniture, flooring, interior trim and firewood.

For more information about National Arbor Day, visit www.arborday.org, or contact the National Arbor Day Foundation, 100 Arbor Avenue, Nebraska City, NE 68410, 888/448-7337.



Hunting accidents can happen to anyone

Recent news that Vice President Dick Cheney was involved in a hunting accident emphasizes the fact that accidents can happen to anyone. Cheney, a former hunter education instructor, accidentally shot a companion while hunting quail in Texas this past February. With Missouri's spring turkey hunting season close at hand, Cheney's disheartening experience is a reminder to all hunters to constantly be aware of hunting partners' locations.



Trash Bash on for '06

Students in Traci Lewis' class at Savannah Middle School combined creativity and functionality to win the Conservation Department's "Yes You Can Make Missouri Litter-Free" trash-can-decorating contest. The contest challenged Missouri youngsters to communicate an anti-littering message by dressing up a trash can.

The winners turned a trash can into a wheeled trash collection vehicle with the motto, "No MORE Trash, So We Won't Crash." They received \$500 and a trophy.

Runners-up in the contest included Northeast Nodaway Elementary in Parnell, William Yates Elementary in Blue Springs and Yeatman-Liddell Middle CEC in St. Louis. Each received a \$100 prize.

The contest was part of the No MORE Trash! program sponsored by the Conservation Department and the Missouri Department of Transportation. April is No MORE Trash Month, when concerned citizens statewide organize litter pickups in parks, neighborhoods and along city streets and highways. To get involved, visit www.nomoretrash.org or call 573/522-4115, ext. 3855.

Telecheck impresses conservation agents, hunters

Missouri's new automated deer and turkey checking system was a powerful tool for conservation agents during the 2005 firearms deer season. Agents said



Telecheck gave them a better handle on poachers' activities through instant access to checking data.

The violation most often discovered using Telecheck involved hunters who killed bucks and checked them as does. Ethical hunters were impressed when agents showed up at their houses to verify that the bucks they Telechecked had at least four points on one side. Violators were impressed, too, but not happy.

One agent inspected deer at a meat-packing house, comparing deer with information that hunters had given when Telechecking their kills.

He did not find a single hunter who had abused the system.

New Quail Unlimited biologist to focus efforts in northeast

Lisa Potter has a challenging job bringing bobwhite quail back to northeastern Missouri. However, she also has a wealth of experience for the task and the support of three powerful partners: Quail Unlimited, the Conservation Department and the U.S. Department of Agriculture.

Potter's main task as a technical services biologist will be working one-on-one with landowners to encourage quail and other grassland wildlife. Landowners who work with her will find financial as well as technical help available for quail-friendly farming practices.

Potter also will be an educator, speaking to school and FFA groups and teaching classes at the annual Missouri Quail Academy for teenagers.

Northeast Missouri landowners who are interested in quail management can contact Potter at USDA Natural Resources Conservation Service, 18771 Highway 15, Paris, MO 65275, or by phone at 660/327-4117.

WINGS OF SPRING FESTIVAL IS APRIL 29

Join in the first Wings of Spring Festival to celebrate birding. The festival will take place from 10 a.m. to 4 p.m. April 29 at the Riverlands Migratory Bird Sanctuary near Alton, Ill. Visitors will find programs and events for all levels of birding interest, including speakers, guided birding tours and vendors of birding-related goods. Birds likely to be visible at the sanctuary include land, water and shore birds, such as white pelicans, egrets, sandpipers, ducks, gulls, warblers, vireos, orioles, tanagers, cuckoos and brown thrashers. Organizers plan to make the festival an annual event. For more information, visit [www.wingsofspring.org](http://www.wingsofpring.org), or call 800/258-6645.



White pelicans



PARTNERING FOR FIRE PROTECTION

Missouri's spring wildfire season is upon us. Dead vegetation, combined with the low humidity and high winds typical of the season, make wildfire a greater risk. Each year, about 3,700 wildfires burn more than 55,000 acres of forest and grassland.

Partnerships are important to the Conservation Department, and this is nowhere more evident than in the area of fire protection. Every year, the agency provides approximately \$375,000 in matching funds through the Rural Community Fire Protection Program to help rural fire departments upgrade equipment that is used to protect private property as well as forests and other public resources. It also offers used firefighting equipment to rural fire departments on loan or for purchase at discounts of up to 50 percent.

Citizens can also partner with the Department to protect forests and grasslands from fire. Always check with your local fire department or District Forester for local burning conditions before attempting any open burning, and report suspected forest arson by calling toll-free at 1/800/392-1111.

TURNING GOBBLERS INTO DÉCOR

If you want a lasting and inexpensive memento of a memorable tom, follow these easy steps for mounting a turkey cape.

Slice the breast meat from the bone and cut off the legs, taking care not to damage the skin and feathers on either side.

Cut the skin at the base of the bird's neck, then down either side to the base of the tail. Carefully separate the skin from the carcass, working from the neck down. Then cut the tail free of the body and remove as much fat and flesh as possible from the inside of the tail without damaging the plumage.

Smooth all feathers, then lay the cape and tail flesh side up on a board and stretch the skin out with push pins. Use sewing pins to spread and hold tail feathers in fanned position.

Sprinkle exposed skin liberally with borax laundry powder. Put the board in a cool, dry place until dry.

Brush off excess borax, unpin skin and tail. Trim the edges of the cape and make final adjustments to the plumage. Mist lightly with hair spray to hold feathers in place.

Fasten the cape to a wooden plaque with bronze upholstery tacks around the edges.



Ellen Ashbee

Voyage of literary discovery pays off

Lewis and Clark's Corps of Discovery trekked for more than two years without finding the object of their expedition, a water passage to the Northwest. Participants in the Conservation Department's "Journaling with Lewis & Clark" program fared much better. All got to discover new adventures in Lewis and Clark's footsteps, and a few got cool camping gear as a bonus.

The "Discovery of Outdoor Missouri" challenged participants to visit eight of nine designated conservation areas around the state and record observations about each. They got a stamp in their journal book at each area, plus an enamel lapel pin memento. Those who visited at least eight sites got a special pin and were entered in a drawing for prizes at the close of the program in December.

Ellen Ashbee of Springfield was the grand-prize winner, taking home a tent, two sleeping bags and two camp pillows donated by Bass Pro Shops and a lantern, a cook stove and a cooler donated by The Coleman Company of Wichita, Kan. She, her husband and their two sons completed their journey of discovery.

Runners up Larry A. Williams of Kansas City, Patricia Collier of Florissant and Travis Gemmell of Barnhart each won a Coleman two-burner camp stove.



Belle FFA's bluebird conservation work

FFA students at the Maries County R-2 School found a natural ally in the United Sportsmen's League. The St. Louis group underwrote efforts by Agriculture Teacher Hillary Stanley's FFA group to provide nesting habitat for Missouri's state bird.

"My wildlife class liked using the woodworking shop, so they decided to build some kind of habitat," said Stanley. "They each made a nest box, and they really enjoyed it. I told them what a good community service project it would be, and some of them were excited about that."

To fuel their excitement, Stanley applied to the Conservation Department for a \$500 grant funded by the Sportsmen's League. Excitement spread, and before long the youths had made more than 250 bluebird and wren nest boxes. They hung them at the elementary school, a nursing home, the city park and other public places. They gave them away at FFA and school functions and to churches, and they continue to monitor and maintain the boxes.

Stanley has moved to a teaching job at Northwestern School in Mendon, where she hopes to duplicate the program with another United Sportsmen's League grant.

The grants are available only to FFA chapters. To learn more about the United Sportsmen's League Wildlife Conservation Grant Program, contact Matt Seek, Missouri Department of Conservation, P.O. Box 180, Jefferson City, 65102-0180, 573/751-4115 or e-mail him at Matt.Seek@mdc.mo.gov.

Three Missouri chapters make the DU President's Top 100 list

Duck hunters are a passionate lot, but some are more motivated than others. The Grand River, St. Louis and Columbia chapters of Ducks Unlimited (DU) prove what a difference such passion can make. In 2004, they raised \$268,871 for waterfowl habitat restoration. That is enough to protect, enhance or create 1,075 acres of waterfowl habitat. It was also enough to earn each of the three chapters a place on the DU President's Top 100 List. In all, Missouri DU chapters raised more than \$1.5 million for habitat work. That is enough for 6,246 acres of habitat and ranks the seventh in the nation. DU has more than 3,700 chapters nationwide. To get involved, visit www.ducks.org.

Johnson's Shut-Ins damage assessment includes fish & wildlife

Conservation Department workers are part of the multi-agency, multidisciplinary team assessing damage from the failure of a dam at AmerenUE's Taum Sauk hydroelectric power plant in Reynolds County Dec. 14. The failure released more than a billion gallons of water into the East Fork of the Black River. No human lives were lost, but the flood changed the landscape and the stream, affecting plants and animals.

The torrent deposited mud, sand and debris on the stream valley. It also scoured the gorge for which Johnson's Shut-Ins State Park is named and carried material into Lower Taum Sauk Lake. The lower lake's dam held, in spite of being overtopped. That prevented severe flooding downstream, but muddy water fouled the East Fork and the Black River far downstream.

Conservation Department biologists are assessing aquatic habitat loss, fish numbers and variety, tree losses, changed stream-flow patterns and soil erosion. Most of the fish and wildlife living in and along the East Fork upstream from the lower reservoir probably were either killed or washed downstream. Biologists will be watching to see how quickly fish populations recover. One interesting early finding is the discovery of madtoms, tiny catfish that normally are found only in streams, in the lower reservoir.

AmerenUE used chemicals to settle sediment suspended in the reservoir water. The treatment, which is also used in municipal drinking-water supplies, is considered safe, and the effort cleared the reservoir's water substantially. Long-term water quality will be another factor the Conservation Department helps track.

Johnson's Shut-Ins Fen Natural Area, which harbors several rare and unusual plants, was smothered by mud and debris. State and federal agencies are working with consultants for AmerenUE who are removing the mud by hand in an attempt to save as many plants as possible. The calendar is on their side, as most of the plants are dormant in winter.



Outdoor Calendar

Hunting

	open	close
Deer Firearms	11/11/06	to be announced
Groundhog	5/15/06	12/15/06
Rabbits	10/1/06	2/15/07
Squirrels	5/27/06	2/15/07
Turkey		
Youth resident only	4/8/06	4/9/06
Spring	4/24/06	5/14/06
Light Goose Conservation Order		4/30/06

Waterfowl Hunting Digest or see

www.MissouriConservation.org/hunt/wtrfowl/info/seasons

Fishing

Black Bass (certain Ozark streams)	5/27/06	2/28/07
impoundments and other streams year round		
Bullfrog	sunset	midnight
	6/30/06	10/31/06
Nongame fish snagging	3/15/06	5/15/06
Paddlefish	3/15/06	4/30/06
Paddlefish on the Mississippi River	3/15/06	5/15/06
Trout Parks	3/1/06	10/31/06

For complete information about seasons, limits, methods and restrictions, consult the *Wildlife Code* and the current summaries of "Missouri Hunting and Trapping Regulations" and "Missouri Fishing Regulations," the "Fall Deer and Turkey Hunting Regulations and Information," the "Waterfowl Hunting Digest" and the "Migratory Bird Hunting Digest." This information is on our Web site at www.MissouriConservation.org/regs/ and at permit vendors.

The Conservation Department's computerized point-of-sale system allows you to purchase or replace your permits through local vendors or by phone. The toll-free number is 800/392-4115. Allow 10 days for delivery of telephone purchases. To purchase permits online go to www.wildlife.license.com/mo/.



"Yes, I can hear you. We've built on the tower—the reception is great!"

Quail Forever chapter spans generations

It didn't take long for Don Walker of Nixa and Phil Fels from Strafford to decide they were on the same sheet of music. Their preferred tune is the familiar call of the bobwhite quail.



From Left: Phil Fels and Don Walker

One day last December, Walker, a quail-hunting veteran of 68 seasons, met with Fels, one of the founders of Missouri's newest chapter of Quail Forever. The setting was a farm in Douglas County, where they found two coveys of quail and a lot of common ground.

Fels told Walker about plans for quail restoration once the Ozark Plateau Quail Forever Chapter gets rolling. Those plans include working with private property owners to restore quail habitat on their land. Having heard what Fels had to say, Walker volunteered, "I think I need to join."

Southwest Missouri residents who want more information on this new Quail Forever chapter should contact Mike Brooks, 417/207-6766, mbrooks401@aol.com, for more information. For information on other Missouri Quail Forever chapters, contact Jim Wooley, 641/774-2238, jwooley@quailforever.org. The chapter's first fundraising banquet is set for April 1. The event will include live and silent auctions, raffles and door-prize drawings.

AGENT NOTEBOOK

In these electronically connected

days, many people believe that they no longer have to carry their fishing permit. That's not true. The Wildlife Code still requires you to carry your permits on your person at all times while fishing.

Many anglers worry about getting their permits wet or losing them in the river. Today's permits are waterproof and, if lost, can be replaced at any permit vendor for \$2.

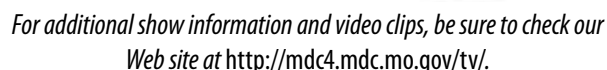
While working Missouri's float streams for most of my career, I have seen some ingenious methods to make sure the fishing permit remains handy. Maybe one of the following will work for you:

- * Place the permit in a pill bottle.
- * Carry your permit in a plastic pocket or plastic bag taped to the lid of your tackle box.
- * Laminate the permit and pin it to your pocket.
- * Pin the permit inside your hat.
- * Tape the permit to the handle of your fishing rod or top of the tackle box.

Make sure you can read the whole thing without having to remove the tape.

Whatever method you choose, don't worry about getting it wet; just make sure it's handy.—Rob Brandenburg





West Plains OCTV

Chris Vitello has been with MDC's Fisheries Division for 19 years. He has worked in Cape Girardeau, Camdenton, Lebanon and Springfield and is currently Fisheries' Southwest Region supervisor. Chris enjoys fishing and hiking with his wife and family.



Booming-ground Bully

A male northern harrier attempts to flush a male prairie chicken off his booming ground. Although northern harriers often harass prairie chickens, they seldom kill one.—*Noppadol Paothong*



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Free to every
Missouri household